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# **Making Clean Air Market-Friendly EERE/Air Quality Integration**

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# Overview

- EERE/Air Quality Initiative
  - Purpose
  - Strategies
  - Early Results and Returns
- Technical Assistance Project (TAP)
- Ensuring future success

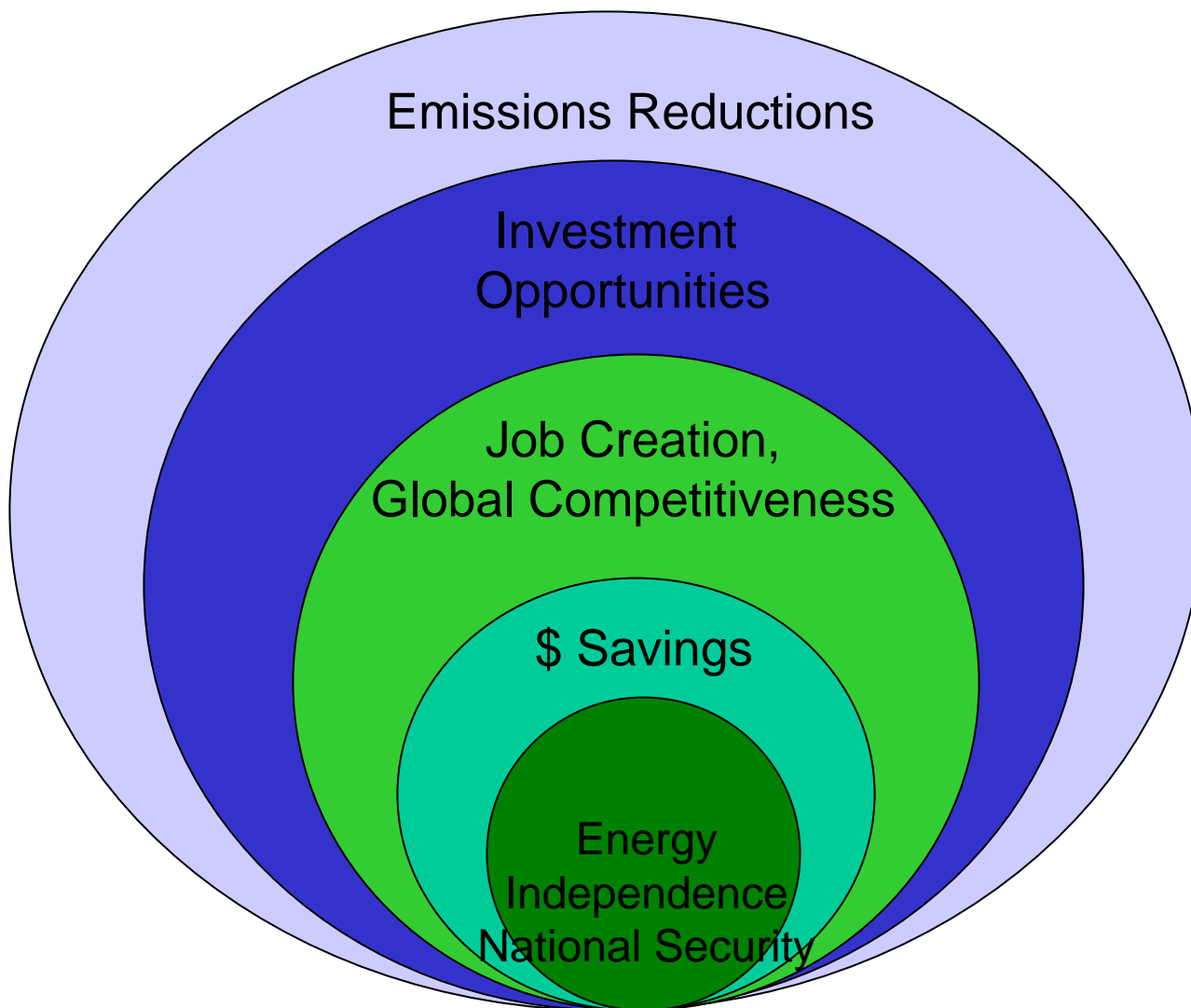


# EERE-Air Integration Purpose

- 1) Align clean energy policy & clean air policy with market forces;
- 2) **Lower compliance costs and reduce regulatory burden** on industry by demonstrating methods of achieving Clean Air objectives using EERE;
- 3) Make cost-effective **EERE measures** “strategies of first choice” in Clean Air Compliance;
- 4) **Leverage** investments to capture a significant share of the **\$19+ billion** that state and local governments invest annually in Clean Air compliance; and
- 5) **Develop capacity** in states on EERE technologies to support clean energy, air quality, economic and state policy goals.



## Expanding EERE's Circle of Influence through Market Drivers





# Strategic Approach

1. **Collaborative strategy** to develop data and replicable state-led case studies through a field-led pilot initiative;
2. Design pilots and related work to achieve change toward market-based **EERE measures as the strategy of first choice**;
3. Ensure sufficient knowledge of EERE technologies & policies in states (energy & environmental agencies).



# EERE AQ Integration Initiative FY 04-05

- DOE initiated an EERE/Air Quality Integration Pilot initiative in FY04.
- Provided support to four regional offices to **facilitate state-led efforts in using EERE measures to address air quality challenges in their states.**
- Funds were also distributed to the National Association of State Energy Officials (NASEO), the Environmental Council of States (ECOS), the Global Environment and Technology Foundation (GETF) and the National Renewable Energy Laboratory (NREL).

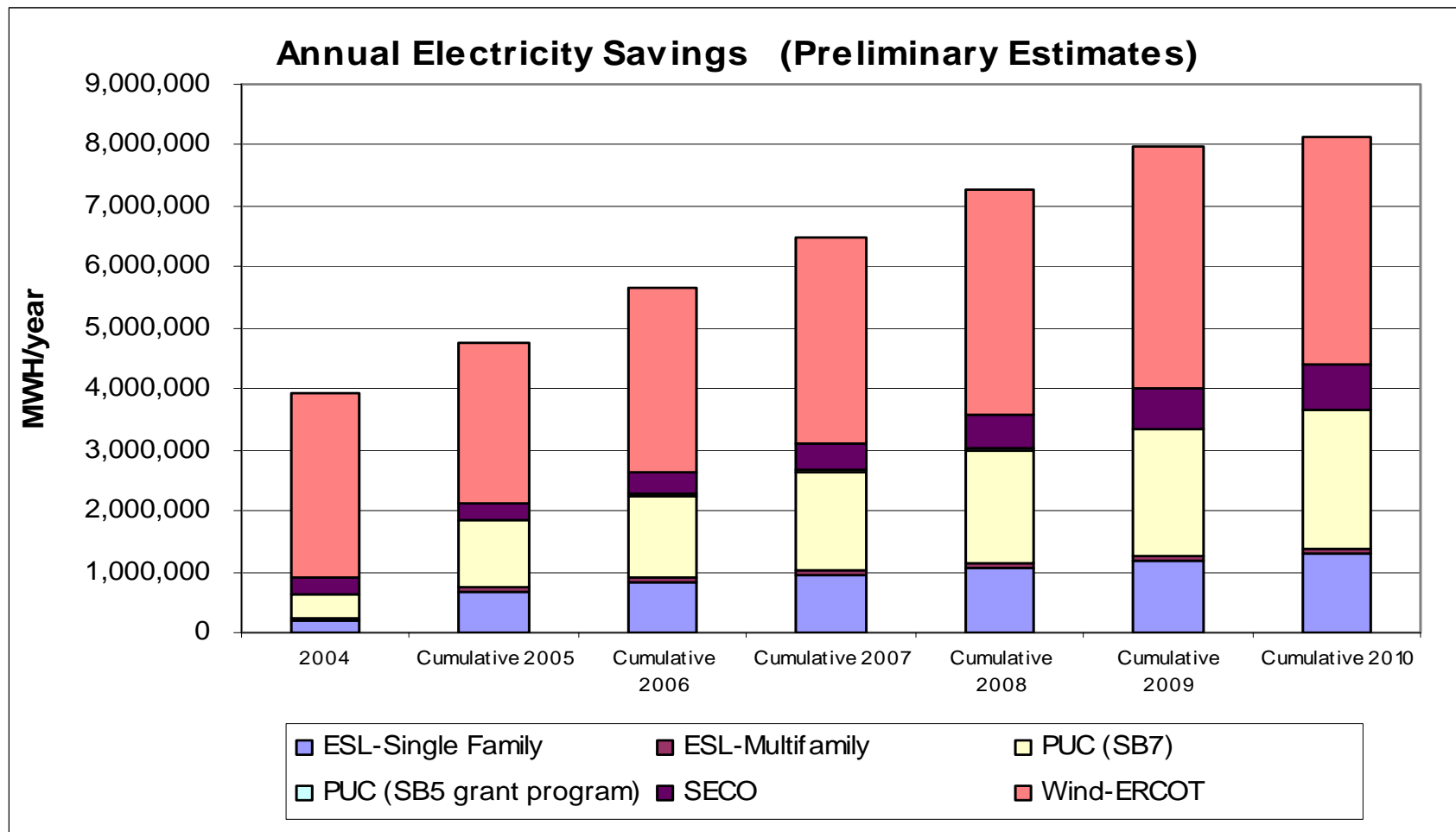


# Results and Returns – Pilot Initiative

<b>TX</b>	<b>Aggregated EE savings: 4+ Million MWh/year</b> resulting in a reduction of over <b>3,000 tons in NOx emissions/ozone season in FY05</b> , anticipated growing to over <b>8 million MWh saved and almost 6,000 tons of NOx emissions reduced by 2010</b> ; Plan to incorporate into SIPs; significant investment in EERE in SEPs
<b>NJ</b>	RE generation in 2005 alone of over <b>320,000 MWh</b> – this number when coupled with EE measures and many more RE projects will grow significantly; <b>NOx emission reductions in summer of 2005 of 240 tons projected to grow to 474 to 898 tons by 2012</b>
<b>GA</b>	State Energy Office (GEFA) and the Environmental Protection Division now working collaboratively. Recent estimates of EE potential in GA show by <b>2010: 3 to 12 million MWh reductions resulting in reductions of about 1,800 tons NOx, 4,800 tons SO2 and 1.6 million tons CO2</b>
<b>IL</b>	Working towards including 8% statewide RPS into SIP by <b>2012</b> yielding: <b>12.5 million MWh of RE production</b> <b>Significant reductions in SOx, NOx and CO2</b> <b>1,800 new jobs</b>



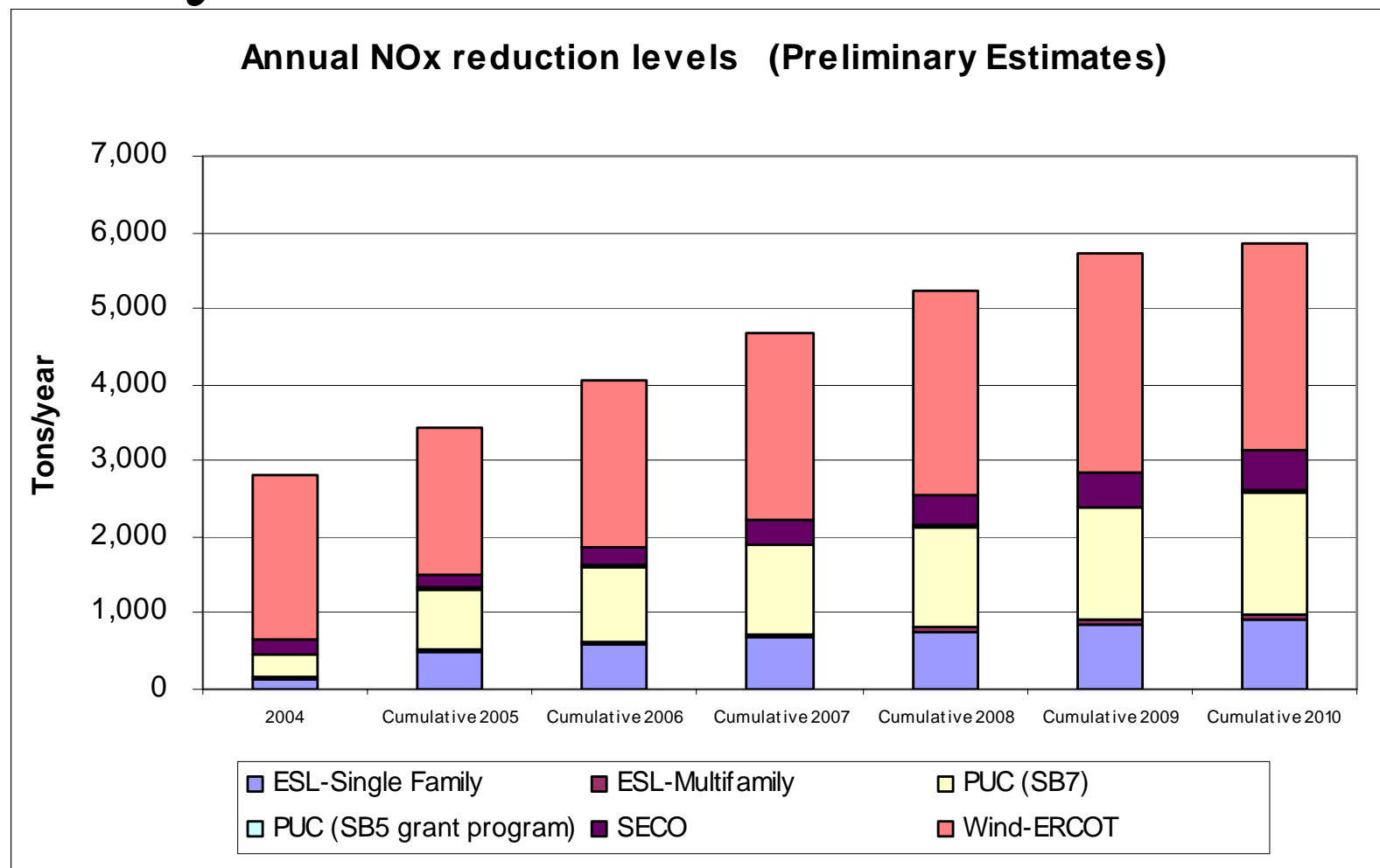
# Early Returns and Results - Texas







# Early Returns and Results - Texas





# Early Returns and Results – State & Federal Enforcement Settlements (SEPs)

- **\$1.8 million directed to solar PV** on municipal buildings in a New York settlement
- **\$3 million directed to EE/RE technologies** in the Santee Cooper federal settlement in South Carolina
- **Utah Air Quality Division asking violators**, as appropriate, to **purchase RECs for new wind power**



# EERE/Air Quality Initiative Goals

- **FY04-05** Start four state-led pilot projects establishing clear procedures and **case studies** for states **to use EERE to help meet air quality objectives**
- **FY06** Complete initial pilot projects and add additional pilots including two new regions. Provide technical information to facilitate additional **state and federal SEPs which include investments in EERE technologies**. Conduct **state/local on-site & on-line training to build capacity**; identify need for analytical tools for state/local governments



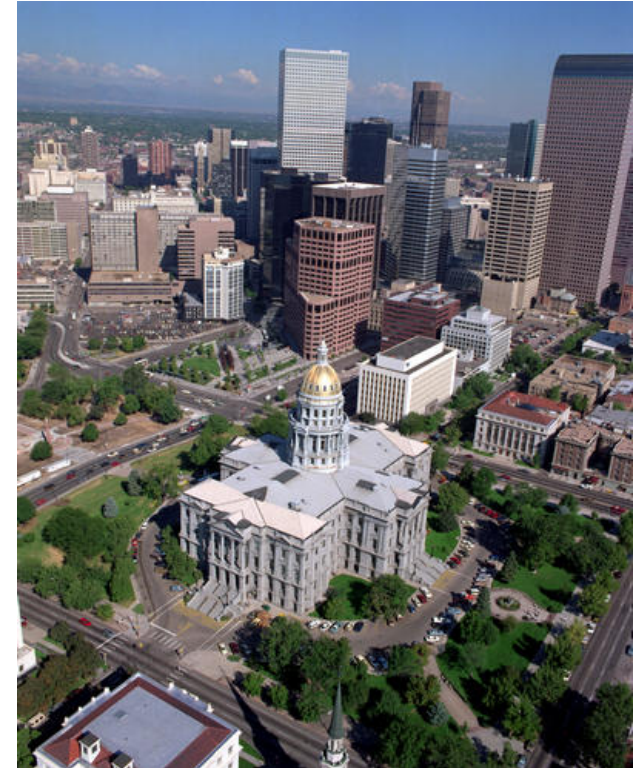
# EERE/Air Quality Initiative Goals

- **FY07** Define & compile lessons-learned; **apply lessons-learned on using EERE in additional state/federal air permits, SIPs and SEPs; develop monitoring, measuring and verification protocols for EERE in air programs; conduct state/local training** based on lessons learned; complete development of analytical tools
- **FY08** **Expand use of EERE in SIPs, air permits (state and federal) and in enforcement settlements;** work with EPA in issuance of next round of national guidance moving from *EERE as available* options to **strategic options of first choice**
- **FY09** Further expansion and replication with assistance
- **FY10** **Cultural change recognized – state and federal clean energy/environmental policies and agencies in full coordination/collaboration**



# Strategic Tools: Technical Assistance Project (TAP)

- Quick access to DOE national lab experts for state and local officials and organizations.
- Individualized assistance with crosscutting energy efficiency & renewable energy issues.
- Addresses issues not currently covered by an existing DOE program.
- \$5k assistance budget





# TAP Project Areas

Crosscutting, not covered by other DOE programs

1. System benefit charges or other rate-payer funded utility efficiency and renewable programs;
2. Renewable or efficiency portfolio standards;
3. Use of clean energy technologies to help states and localities address air emissions; or
4. Use of renewable energy on public lands (state and local)

Requests that extend beyond these areas are considered  
on a case-by-case basis.



# A Unique Cooperative Effort

A partnership between DOE HQ, Regional Offices and 3 participating National Labs:

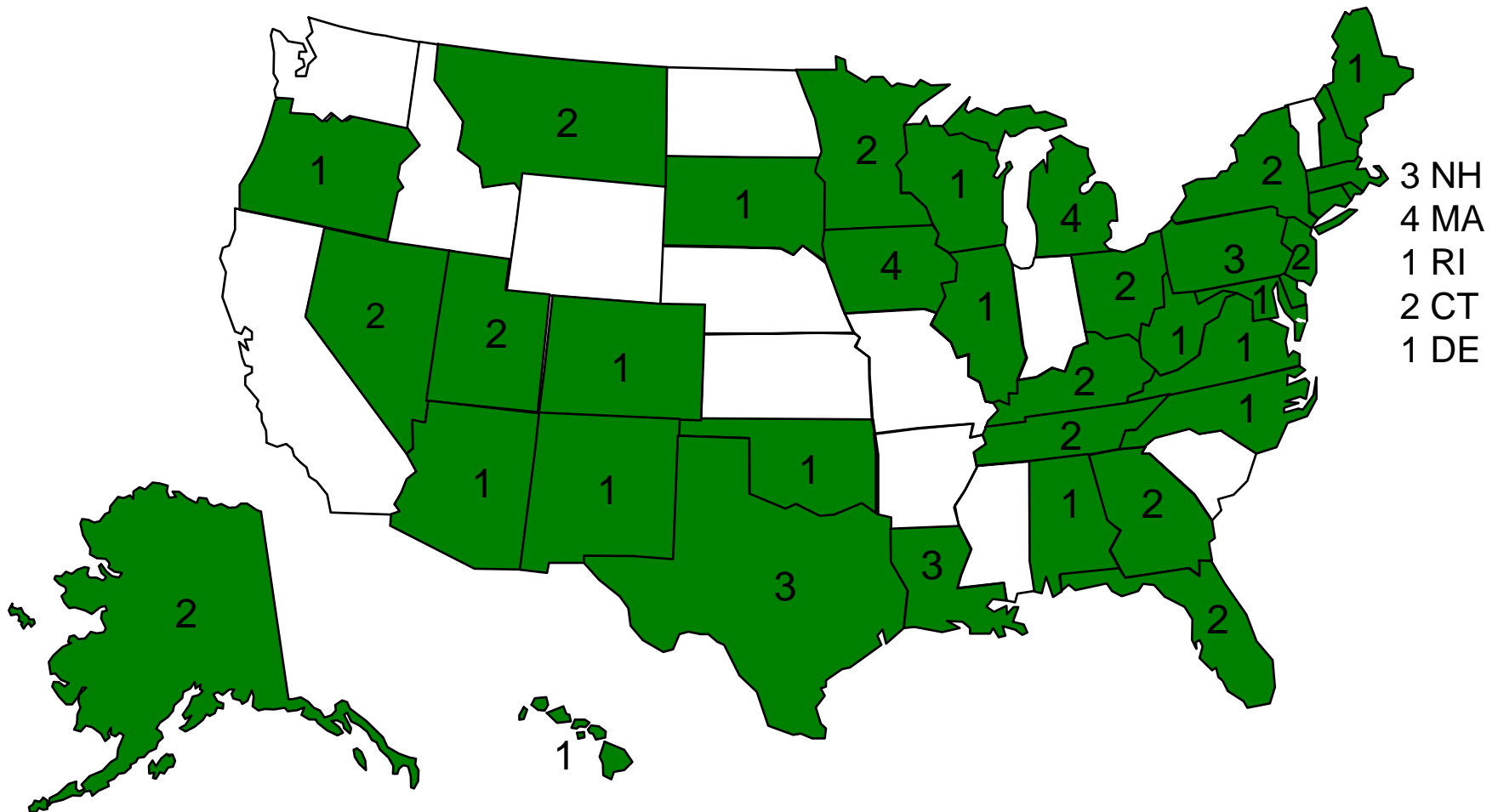
- Lawrence Berkeley National Lab (LBNL)
- National Renewable Energy Lab (NREL)
- Oak Ridge National Lab (ORNL)
- Other labs as needed







## States Assisted to Date







# Early Returns and Results – TAP

Examples of state requests for assistance  
in quantifying emission reductions from EERE

## **Louisiana:**

- TAP request involved quantifying the emission reductions from EE technologies, funded and implemented through performance contracting, on 33 municipal buildings in Shreveport – an Early Action Compact area (EPA collaborated and provided funding and assistance to this project)
- Second request was to assist state in quantifying the emission reductions from a new 19 MW CHP facility in Baton Rouge (in AQ non-attainment)



# Evaluation Comments

*Louis McArthur, Program Manager for Louisiana DNR comments, "The assistance received from all parties greatly exceeded any expectations that we may have had from the program. Our office has been interested in exploring quantification of demand side emissions reductions for some time now, but the TAP assistance allowed us to take the next step."*

Tennessee Senior Legislative Research Analyst Margaret A. Rose noted, "I really would have had a hard time completing the report without Mark's input. He clarified issues that were foreign and confusing to me. His assistance was invaluable and I appreciate the Department of Energy and ORNL for providing his expertise to me."



# Training on Air Quality Issues

- Identify how **EERE technologies can be incorporated broadly into state air quality improvement programs**
  - Integrated training involves **both state energy and air quality staff**
- Provide technical information on **quantifying emission reductions from EERE**
- **Regional integrated training** (state energy and air quality officials) planned for this fall in Golden, CO in collaboration with EPA Region VI Dallas (contributing funds to assist state AQ officials to attend) and Region VIII Denver



# Vision of Success

- **What are we celebrating 5 years from now?**
  - EERE measures are becoming the **market-based options of first choice** in meeting air quality objectives
  - **EERE** are a *standard* part of AQ permits, planning (**SIPs**), enforcement (**SEPs**) and implementation decisions
  - **Increased investment** in and use of **EERE measures**